

REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the amendments and remarks herewith. The present amendment is being made to facilitate prosecution of the application.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1-12 are currently pending. Claims 1, 7, and 8, which are independent, are amended. Support for this amendment is provided throughout the Specification, specifically at pages 23 and 26.

No new matter has been introduced by this amendment. Changes to the claims are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

II. REJECTIONS UNDER 35 U.S.C. §102(b) AND §103(a)

Claims 1, 2, 4-9, and 11-12 were rejected under 35 U.S.C. §102(b) as allegedly anticipated by U.S. Patent No. 6,505,096 to Takenaka¹ (hereinafter, merely “Takenaka”).

Claims 3 and 10 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 5,430,643 to Seraji (hereinafter, merely “Seraji”) in view of U.S. Patent No. 6,853,881 to Watanabe et al. (hereinafter, merely “Watanabe”).

III. RESPONSE TO REJECTIONS

¹ The Office Action (see page 2) listed Seraji as the inventor of the 6,505,096 patent. Applicant submits that Takenaka is listed in the attached Notice of Reference Cited as the inventor of the 6,505,096 patent.

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Claim 1 recites, *inter alia*:

"wherein movement constraint-conditions comprises conditions corresponding to constraints regarding to an original point position of a link, a link posture, a gravity center position of a link, a joint angle, a gravity center position of the robot, or an entire angular momentum" (emphasis added)

As understood by Applicant, Takenaka relates to a biped robot having arms which is controlled to keep a stable posture, even when the robot is subject to unexpected reaction force from an object.

As understood by Applicant, Seraji relates to a seven-degree-of-freedom robot arm with a six-degree-of-freedom end effector controlled by a processor employing a 6-by-7 Jacobian matrix for defining location and orientation of the end effector in terms of the rotation angles of the joints, a 1 (or more)-by-7 Jacobian matrix for defining 1 or more user-specified kinematic functions constraining location or movement of selected portions of the arm in terms of the joint angles.

As understood by Applicant, Watanabe relates to a robot controller executing an operating program, calculating a position and posture of a robot, and sending the position and posture information to a personal computer.

Applicant respectfully submits that Takenaka, Seraji and Watanabe, taken either alone or in combination, fail to disclose or suggest the above-identified features of claim 1. Specifically, nothing in Takenaka, Seraji and Watanabe teaches or suggests wherein movement constraint-conditions comprises conditions corresponding to constraints regarding to an original point position of a link, a link posture, a gravity center position of a link, a joint angle, a gravity center position of the robot, or an entire angular momentum, as recited in claim 1 (emphasis added).

Therefore, Applicants respectfully submit that claim 1 is patentable.

For reasons similar to those described above with regard to independent claim 1, independent claim 8 is also patentable.

Claim 7 recites, *inter alia*:

“...wherein the redundancy drive-method is set to minimize system state changes and target state deviation.” (emphasis added)

Applicant respectfully submits that Takenaka, Seraji and Watanabe, taken either alone or in combination, fail to disclose or suggest the above-identified features of claim 7. Specifically, nothing in Takenaka, Seraji and Watanabe teaches or suggests wherein the redundancy drive-method is set to minimize system state changes and target state deviation, as recited in claim 7 (emphasis added).

Therefore, Applicants respectfully submit that claim 7 is patentable.

IV. DEPENDENT CLAIMS

The other claims are dependent from one of the independent claims discussed above, and are therefore patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

CONCLUSION

In the event the Examiner disagrees with any of the statements appearing above with respect to the disclosures in the cited reference, or references, it is respectfully requested that the Examiner specifically indicate the portion, or portions, of the reference, or references, providing the basis for a contrary view.

Please charge any additional fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable and Applicant respectfully requests early passage to issue of the present application.

Respectfully submitted,

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